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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,364	04/15/2004	Chang Nam Kim	K-0633	6307
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KED & ASSOCIATES, LLP			EXAMINER	
P.O. Box 221200			GUHARAY, KARABI	
Chantilly, VA 20153-1200			ART UNIT	PAPER NUMBER
			2879	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/824,364

Applicant(s)

KIM, CHANG NAM

Examiner

Karabi Guharay

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE, filed on 9/13/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 7-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 7-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/13/07 has been entered.

Specification

The disclosure is objected to because of the following informalities:

Paragraph 10 of page 5 recites "insulating film 106 for insulating the bulkhead 107 from the anode strip 105", however, it should read as "insulating film 106 for insulating the bulkhead 107 from the anode strip 102".

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities:

Claim 1 recites "a bulkhead for insulating the emitting cell from the cathode strip".

Since emitting cell includes cathode strip, how bulk head is insulating the emitting cell from the cathode strip? Rather bulkhead is separating anode strip of the emitting cell from the cathode strip of the emitting cell. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 11-17 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Murayama et al. (JP 2001-230073).

Regarding claims 1 & 11, Murayama discloses an organic EL panel (Fig 11 & 15) comprising an emitting cell (1) comprising an anode strip (3a), a supplement electrode (3b ; see Fig 12 & Fig 8), an organic EL layer (8a of Fig 10), and a cathode strip (9 of Fig 12 & 15); a bulkhead (7) for insulating the emitting cell (1) from the anode strip (see Fig 12), and at least one supplemental bulkhead (15a of Figs 41-45) coupled to at least one side portion other than an end portion of the bulkhead 7 (see paragraphs 9-15 of English Translation), wherein the supplement bulkhead coupled to at least one side portion other than said end portion of the bulkhead is connected with another supplement bulkhead coupled to an adjacent bulkhead (though Murayama shows connection of supplemental bulkhead in Figs 48-49, wherein the supplemental bulk head 15a is coupled to the end portion, however, Murayama further teaches that it can be connected in case of other embodiments shown in Figs 40-47; see paragraphs 22 & 23 of English translation).

Regarding claims 2 & 12, Murayama discloses that the supplemental bulkhead (15) is provided in an area between the emitting cell and a sealant (Fig 15, though sealant is not shown in figures, it is positioned at the periphery of the substrate including emitting cells and bulkheads).

Regarding claims 3 & 13, Murayama discloses that the supplemental bulkhead is perpendicular, thus forming a predetermined angle with the bulkhead (7, see 12).

Regarding claim 14, Murayama discloses that the supplemental bulkhead includes 3 segments (see Fig 27).

Regarding claims 15 & 16, Murayama discloses that the supplemental bulkhead (15) comprises a first supplemental bulkhead segment perpendicular (or first predetermined angle) to and connected with at least one of the bulkheads; a second supplemental bulkhead segment parallel to said one of the bulkheads and connected with the first supplemental bulkhead segment; and a third supplemental bulkhead segment perpendicular (or a second predetermined angle) to said one of the bulkheads and connected with the second supplemental bulkhead segment (see Fig 26).

Regarding claim 17, Murayama discloses that the supplemental bulkhead comprises a first supplemental bulkhead segment curved to and connected with at least one of the bulkheads; a second supplemental bulkhead segment parallel to said at least one of the bulkheads and connected with the first supplemental bulkhead segment; and a third supplemental bulkhead segment curved to said at least one of the bulkheads and connected with the second supplemental bulkhead segment (see Fig 28).

Regarding claims 20 & 21, Murayama discloses an organic EL display panel (Fig 48) comprising a plurality of emitting cells (area enclosing by anode strip 9) on an emitting region of a substrate; a sealant formed in a region other than the emitting region (not shown in figures, see paragraph 17) and a supplemental bulkhead (15a) angled between the emitting cell and the sealant (see Fig 47) so as to prevent sealant from permeating into the emitting region (shown in Fig 48).

Further, it is elementary that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent office has the reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. *In Re Swinehart*, 169 USPQ 226 (CCPA 1971). Thus, the functional limitation of "so as to prevent a sealant from permeating into the emitting cell" is taught by Murayama et al. under the principles of functional inherency.

Regarding claim 22, Murayama discloses that the at least one supplemental bulkhead is coupled to two bulkheads (Fig 48).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 7-10, 18-19 & 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art, and further in view of Murayama et al. (JP 2001-230073).

Regarding claims 5, 7, 9-10, 18-19 & 23, AAPA discloses a method of manufacturing an organic EL display panel comprising forming a supplemental electrode (103 of Fig 1) in a smaller width than an ITO strip, forming an insulating film (106), forming a bulkhead (107), forming an organic EL layer (104) and an anode strip (105) and adhering a seal cover (109) and a glass substrate (101) by a sealant, wherein the insulating film (106) is around the organic EL layer from a predetermined area including the sealant to a portion of the glass substrate (see Fig 1).

However, AAPA fails to disclose a supplemental bulkhead coupled to at least one side portion other than an end portion of the bulkhead formed at the same time with the bulkhead, and the supplemental bulkhead coupled to at least one side portion other than an end portion of the bulkhead is connected with another supplement bulkhead coupled to an adjacent bulkhead.

However, Murayama, in the same field of organic EL panel discloses forming a bulkhead (barrier 7) and at least one supplemental bulkhead (15a of Figs 41-45) coupled to at least one side portion other than end portion of the bulkhead at the same time and the supplemental bulkhead coupled to at least one side portion other than an end portion of the bulkhead is connected with another supplement bulkhead coupled to

an adjacent bulkhead (though Murayama shows connection of supplemental bulkhead in Figs 48-49, wherein the supplemental bulk head 15a is coupled to the end portion of bulkhead, however, Murayama teaches that supplemental bulk heads 15a can be connected in case of other embodiments shown in Figs 40-47).

Murayama further teaches that such configuration of bulkheads provide OLED with high reliability (see Abstract).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a supplemental bulkhead as taught by Murayama et al. in the device of AAPA, since this will provide high reliability of the display.

Regarding claim 8, AAPA further discloses forming a short ITO strip (102A of Fig 2A-2B), which is shorter than the ITO strip (102) between the bulkhead (107) and at least one other bulkhead (Fig 2D).

Response to Arguments

Applicant's arguments filed 8/10/07 have been fully considered but they are not persuasive.

Applicant in Remark contends that the added limitation of "the supplement bulkhead coupled to at least one side portion other than said end portion of the bulkhead is connected with another supplement bulkhead coupled to an adjacent bulkhead" is not disclosed by Murayama publication (see Remarks, page 8).

However, examiner respectfully disagrees. Murayama teaches the connection of supplemental bulkheads of adjacent bulkheads in Figs 48-49, however, does not

illustrate connection of supplemental bulkheads (15a) in the embodiments of Figs 40-47, where supplemental bulkhead is not at the end,.

But, in paragraph 23, Murayama explicitly mentioned that such connections could be done to those embodiments also (see paragraph 22 & 23 of English translation).

With respect to rejection of claim 20, Applicant contends that Murayama does not disclose the feature "to prevent a sealant from permeating into the emitting cell" (see page 9 of Remark), rather supplemental bulkhead of Murayama is positioned to prevent conductive wire 11 from contacting a nearby cathode line 9 (see Figs. 3 and 4), thereby preventing a short-circuit between adjacent cathode lines.

In response examiner respectfully presents that first of all "to prevent a sealant from permeating into the emitting cell" is a functional recitation of this specific structure.

Such specific structure is disclosed by Murayama. Though Murayama is reciting a different function (as mentioned above) of such structure, it does not conclude that this structure does not possess any other function (specifically the function as claimed in claim 20; see rejection of claim 20 above).

Further applicant contends that Murayama does not disclose and suggest the position of sealant.

Examiner respectfully points out that sealants are always used to cover the organic display device, including all the pixels inside the cover to have a display having different pixels (see Nagayama US 5962970) thus though not shown in Fig 12, emitting cells (1) divided by bulkheads (7 & 15) are enclosed by the sealant which is generally deposited at the periphery of the substrate encompassing all the banks or barriers.

Since angled supplemental bulk head is positioned between the sealant and the emitting cells (1) of Fig 12, it will intrinsically prohibit sealant material to permeate into the emitting cells.

In response to further argument that "sealant formed in a region other than the emitting region" and a supplemental bulkhead formed apart from sealant" is not taught by Murayama, examiner respectfully points out that sealant cannot be formed in the emitting region, purpose of sealant is to seal or cover the substrate along the periphery to enclose all the pixels inside the sealant in order to protect the emitting cells or pixels from external environment, thus supplemental bulkhead is formed apart from sealant.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is 571-272-2452. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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K. Guharay
Karabi Guharay
Primary Examiner
Art Unit 2879

11/7/07